

# Planck Particle, Consciousness Quanta, & God Particle

**Abstract:** It is postulated that the all pervading primal cosmic “Substance” called consciousness is diffused into the cosmic space as discrete quanta consistent with a Planck particle. When the principle of particle creation via angular momentum acquisition and spiral motion is applied to the Planck particle, an intrinsic spin equal to  $(\sqrt{2}-1)\hbar$  is obtained, setting the path to the photon spin. Further, the mass-to-radius correlation from quantum to cosmic scale is reconsidered.

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## 1. Introduction

It has been increasingly conceded within the scientific community that consciousness existed prior to matter creation [1-5]. As a matter of fact, consciousness is the only preexisting cosmic “Substance” pervading the whole cosmic space, should we say making up the cosmic space. Consciousness is therefore not a phenomenon emerging from the complexity of the brain, but rather the origin of the observable universe, which came into existence from intelligent and successive self-division and recombination processes. In order for these processes to manifest, it is postulated that consciousness required quantization. The resulting consciousness quanta would correspond to the so-called Planck particle, and be compatible with the enigmatic “God particle”.

Acknowledging that particles are created via angular momentum acquisition and spiral motion [6], the consciousness quanta spin is graphically determined from basic angular momentum conservation and quantization principles. The dazzling large Planck mass is attributed to the consciousness quanta kinetic energy, since consciousness is intrinsically and permanently in motion. An obvious link between consciousness quanta and photon spin angular momenta is anticipated. Further, the correlation between mass and radius from quantum to cosmic scale is reconsidered. And the baryonic matter of the universe is found within the proton spherical volume from the Planck density.

## 2. Planck particle wavelength

If we posit  $l_{pl}$ ,  $t_{pl}$ ,  $m_{pl}$ ,  $c$ ,  $\hbar$ , and  $\lambda_{pl}$  as respectively the Planck length, Planck time, Planck mass, speed of light, reduced Planck constant, and Planck wavelength, we can write:

$$l_{pl} = ct_{pl} = \frac{c\hbar}{m_{pl}c^2} = \frac{\hbar}{m_{pl}c} = \frac{h}{2\pi m_{pl}c} \text{ then } 2\pi l_{pl} = \frac{h}{m_{pl}c} = \lambda_{pl} = 10.155e^{-35}m \quad (1)$$

Therefore the consciousness quanta wavelength may exactly be the circumference of a Planck particle with radius equal to the Planck length.

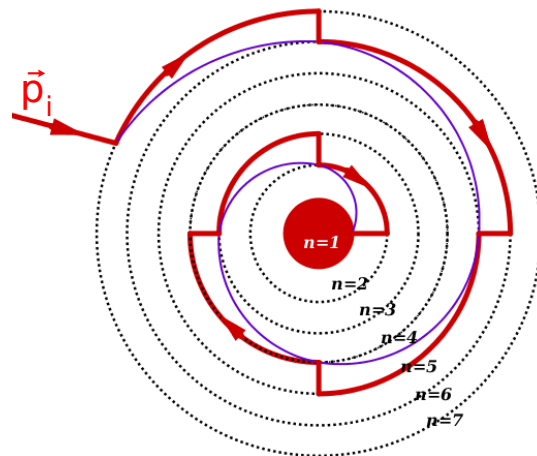
## 3. From Planck particle to consciousness quanta spin angular momentum

We consider the initial linear momentum  $p_i = m_i v_i$  triggering off inward spiral motion via discrete orbitals and decreasing angular momentum quantum numbers. Discrete radii are then governed by the general angular momentum quantization formula

$$\hbar \sqrt{J(J+1)} = mvr \text{ with } J = S + L \quad (2)$$

with  $J$ ,  $L$ , and  $S$  being respectively the total, spin, and orbital angular momenta. It should be stressed that due to momentum conservation principles, the quantity  $mv = m_i v_i = m_0 c$  at any time during the process, with  $m_0$  being the mass at rest.

**Figure 1:** Consciousness quanta formation



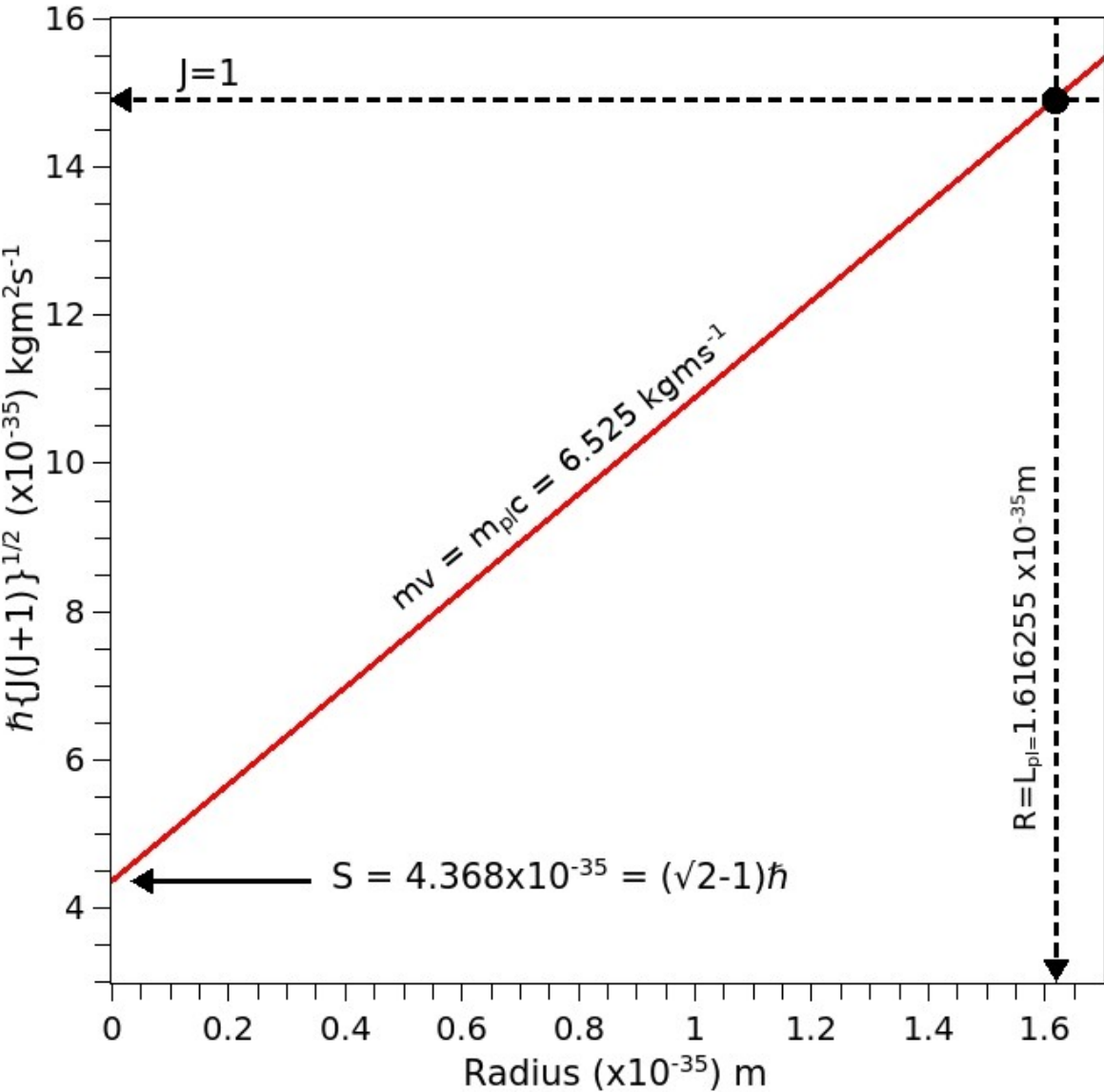
When we graph formula (2), Fig. 2 is obtained. It appears that the optimum quantum number value for  $r = \text{Planck length}$  is  $J=1$ . Under these conditions, the Planck particle intrinsic spin is revealed as

$$S = (\sqrt{2} - 1)\hbar \tag{3}$$

It can be foreseen that this  $S$  value may easily and straightly open the door to bosons spin angular momentum such as the photon, which has a total angular momentum magnitude of  $\hbar\sqrt{2}$  or  $\pm\hbar$  in the direction of propagation.

It is considered at this point that for obvious reasons the consciousness quanta cannot be a composite particle. In fact, the consciousness quanta can be named original particle, particle source, golden particle, or the so-called "God particle". The small size, absence of interaction with other particles in colliders, absence of charge, and observer effect could be some reasons why this abundant and pervasive consciousness quanta in cosmic space has not yet been detected.

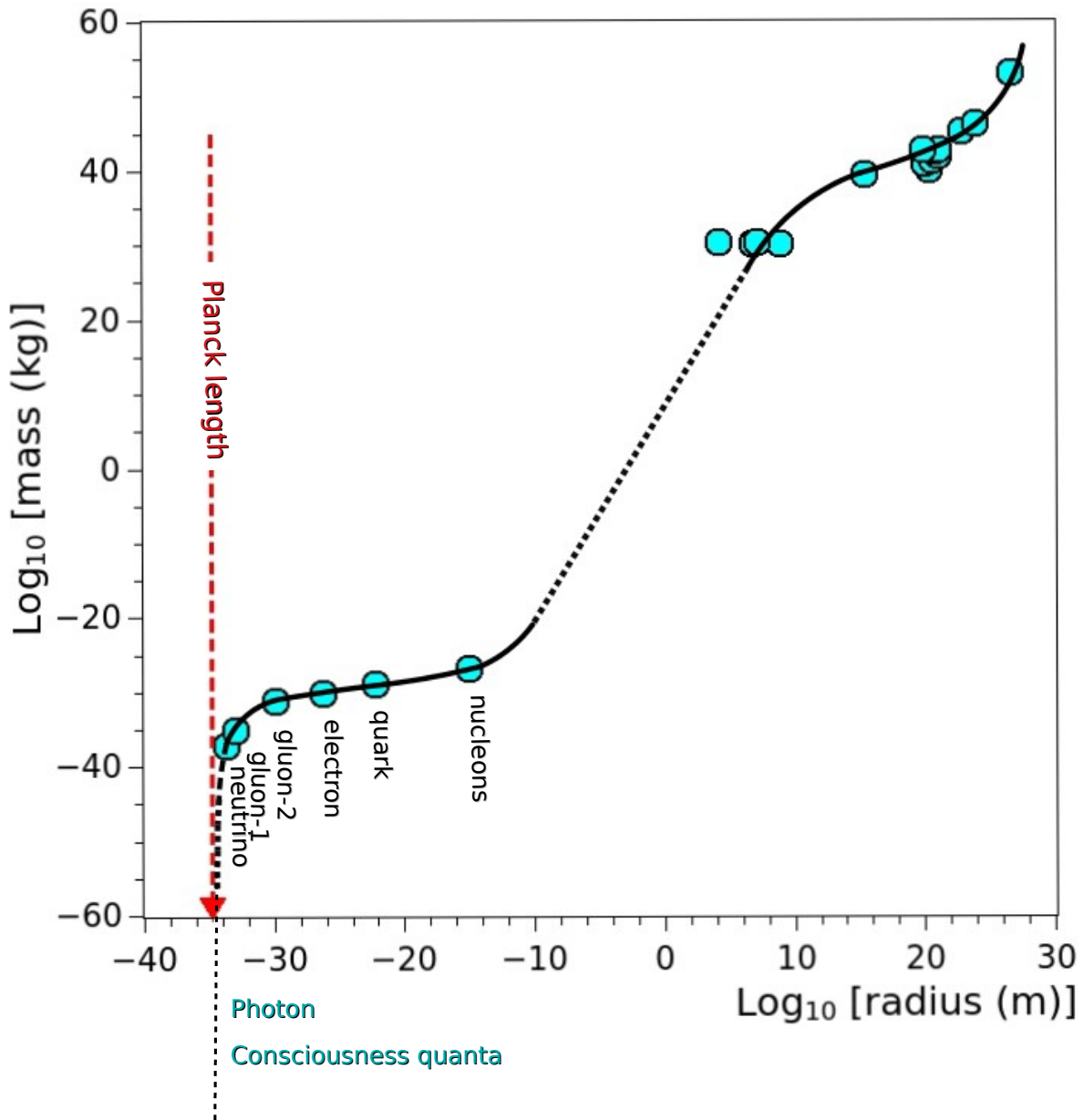
**Figure 2:** Graphic determination of the Planck particle spin angular momentum



#### 4. Reconsidering the mass-to-radius correlation from quantum to cosmic scale

The mass-to-radius correlation is revisited in light of recently determined properties of some particles. The properties of quantum scale entities were published at [7-8]. Radius and mass of astronomical objects were extracted from [9]. They are summarized in Table 1 & 2. The rest mass of the photon and the consciousness quanta are thought to be  $\leq 10^{-60}$  Kg

**Figure 3:** The mass-to-radius correlation reconsidered



**Table 1:** Mass & radius of selected particles (Refs [7-8])

Particle	Rest mass kg	Radius m	log <sub>10</sub> (mass)	log <sub>10</sub> (radius)
Neutrino	7.2 10 <sup>-38</sup>	2 10 <sup>-34</sup>	-37.1	-33.7
Gluon type 1	10 <sup>-35</sup>	10 <sup>-33</sup>	-35	-33
Gluon type 2	10 <sup>-31</sup>	10 <sup>-30</sup>	-31	-30
Electron	9.107 10 <sup>-31</sup>	10 <sup>-26</sup> -10 <sup>-27</sup>	-30	-26.3
Quark	1.22 10 <sup>-29</sup>	10 <sup>-22</sup> -10 <sup>-23</sup>	-28.9	-22.3
Proton	1.672 10 <sup>-27</sup>	8.75 10 <sup>-16</sup>	-26.8	-15.1
Neutron	1.674 10 <sup>-27</sup>	8.34 10 <sup>-16</sup>	-26.8	-15.1

**Table 2:** Mass & radius of some astronomical objects (Ref [9])

Astronomical objects	Mass kg	Radius m	log <sub>10</sub> (mass)	log <sub>10</sub> (radius)
Small white dwarf	1.99 10 <sup>30</sup>	5.56 10 <sup>6</sup>	30.3	6.75
Sun	1.99 10 <sup>30</sup>	6.95 10 <sup>8</sup>	30.3	8.84
Large white dwarf	2.65 10 <sup>30</sup>	1.39 10 <sup>7</sup>	30.4	7.14
Pulsar	2.79 10 <sup>30</sup>	1.5 10 <sup>4</sup>	30.4	4.18
Galaxy M87 Core	3.98 10 <sup>39</sup>	2.37 10 <sup>15</sup>	39.6	15.4
Large Magellanic cloud	1.19 10 <sup>40</sup>	1.84 10 <sup>20</sup>	40.1	20.3
Triangulum galaxy	1.41 10 <sup>41</sup>	1.04 10 <sup>20</sup>	41.1	20
Whirlpool galaxy	3.18 10 <sup>41</sup>	3.6 10 <sup>20</sup>	41.5	20.6
Andromeda galaxy	1.41 10 <sup>42</sup>	1.04 10 <sup>21</sup>	42.1	21
Galaxy M87	5.37 10 <sup>42</sup>	5.68 10 <sup>20</sup>	42.7	20.8
Milky way galaxy	5.97 10 <sup>42</sup>	9.46 10 <sup>20</sup>	42.8	21
Quasar	7.96 10 <sup>42</sup>	6.17 10 <sup>19</sup>	42.9	19.8
Large galaxy cluster	1.99 10 <sup>45</sup>	6.17 10 <sup>22</sup>	45.3	22.8
Local super cluster	1.99 10 <sup>46</sup>	7.1 10 <sup>23</sup>	46.3	23.9
Observable universe	1.5 10 <sup>53</sup>	4.4 10 <sup>26</sup>	53.2	26.6

## 5. The Planck density and total baryonic matter of the universe in a proton spherical volume

Considering the fractal structure of the universe as well as the pervading presence of consciousness in the background of the whole cosmic space, the mass of baryonic matter in the universe ought to be revealed in the proton. In fact, when we lay out the simple formula (4), we find a value which astonishingly compares to the result determined by the standard model [10]. In this formula,  $R_p$  corresponds to the proton radius (0.875 fm) and  $\alpha$  is the fine-structure constant. We find a Planck density equal to  $\approx 7 \times 10^{98} \text{ kg/m}^3$

$$\frac{m_{pl}}{\alpha (l_{pl})^3} \frac{4 \pi (R_p)^3}{3} \approx 2 \times 10^{54} \text{ Kg} \approx \text{baryonic mass of the universe} \quad (4)$$

## 6. Conclusion

A number of research papers refute the existence of the so-called "Planck particle". For example, in reference [11] the authors attempt to prove that the concept of a true physical "Planck particle" can only emerge from mathematical manipulations and conceptual flaws. Nevertheless, it is postulated in this article that the consciousness quanta could elegantly fulfill the concept of a Planck particle, as well as the so-called "God particle". Its ubiquity and smallest size would make it at the source of photons and some other fundamental particles, and would also facilitate the integration of consciousness in sentient beings, from humans all the way to unicellular organisms. The French physicist J.E. Charron argued in the 70-80's that certain fundamental particles such as the electron carry intrinsic consciousness and memory [12-13]. It has also been rightly postulated that quantum mechanics is the physics of the mind [14-15]. Further, the concept of a pervasive consciousness quanta in the universe seems to merge with the anthropic principle of cosmology [16].

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